

**SKILLS FRAMEWORK FOR LANDSCAPE
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

TSC Category	Horticulture					
TSC	Landscape Irrigation Management					
TSC Description	Perform and manage efficient watering and/or irrigation activities for the growth of plants					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	LNS-GNM-1013-1.1	LNS-GNM-2013-1.1	LNS-GNM-3013-1.1	LNS-GNM-4013-1.1	LNS-GNM-5013-1.1	
	Perform watering of shrubs, trees, palms or turf as prescribed	Operate manual and mechanised irrigation systems and tools to meet irrigation requirements of shrubs, trees, palms or turf	Supervise landscape irrigation activities to meet operational requirements of landscape maintenance	Implement irrigation management plans to meet operational requirements of landscape maintenance	Lead the development of strategies to manage landscape irrigation activities in an efficient manner through the effective use of appropriate equipment and systems	
Knowledge	<ul style="list-style-type: none"> Types of watering methods and techniques Irrigation requirements of plants on site Tools and equipment to perform watering Characteristics of proper functioning irrigation systems Safety precautions to be observed while watering plants Personal protective Equipment (PPE) required for horticultural tasks Relevant workplace safety and health (WSH) guidelines 	<ul style="list-style-type: none"> Types of watering methods and techniques Irrigation requirements of plants on site Ways to identify watering needs of specific plants Tools and equipment to perform watering Types and components of irrigation systems Calibration of irrigation systems Operational procedures for irrigation systems Safety precautions to be observed while watering plants and operating irrigation systems Personal protective Equipment (PPE) required for horticultural tasks Relevant workplace safety and health (WSH) guidelines 	<ul style="list-style-type: none"> Irrigation requirements of typical local and foreign plant species used on various sites Water-retention characteristics of different soil and media Tools and equipment to perform watering Types, components and capabilities of irrigation systems Ways to assess efficiency and effectiveness of irrigation systems Water resource management guidelines Personal protective Equipment (PPE) required for horticultural tasks Relevant workplace safety and health (WSH) guidelines 	<ul style="list-style-type: none"> Principles of sustainable water usage Principles of plant irrigation and irrigation requirements of different species or families of plants Water-retention characteristics of different soil and media Quality of water and its impact on irrigation requirements Behaviour of water on varying terrain, soil and media types Types of semi-automated and automated irrigation systems and their operation Types of water distribution systems Irrigation efficiency assessment processes Various water sources and water storage facilities Relevant workplace safety and health (WSH) guidelines 	<ul style="list-style-type: none"> Best practices in sustainable water usage Relationship between soil, water and plants Quality of water and its impact on irrigation requirements Current and upcoming irrigation technologies and water distribution systems Environmental factors that affect water resources Approaches to water resource management for conservation of water resources Legislative and regulatory compliance requirements for water resource management Relevant workplace safety and health (WSH) guidelines 	
Abilities	<ul style="list-style-type: none"> Prepare tools and equipment to be used for watering 	<ul style="list-style-type: none"> Prepare tools, equipment or irrigation 	<ul style="list-style-type: none"> Communicate irrigation requirements to teams 	<ul style="list-style-type: none"> Implement irrigation systems and procedures to meet the irrigation 	<ul style="list-style-type: none"> Identify irrigation technology and systems to meet the 	

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	<ul style="list-style-type: none"> Identify watering needs based on condition of plants and planting beds Water plants, trees, palms or turf using manual tools and equipment Clean and store watering tools and equipment after use Report defects in irrigation systems to supervisor Practice relevant safety and water resource management guidelines in irrigation tasks 	<p>systems for watering of plants, trees or turf</p> <ul style="list-style-type: none"> Calibrate tools, equipment or irrigation systems to ensure adequate amount of water is delivered Operate watering equipment or irrigation systems to execute irrigation of plants, trees, palms or turf Turn on and shut down mains and irrigation systems Check operational systems and clean irrigation systems Carry out routine maintenance of irrigation systems Perform simple repairs to leakages in irrigation piping and joints under supervision Practice relevant safety and water resource management guidelines in irrigation tasks 	<ul style="list-style-type: none"> Verify plant types to be irrigated and the methods to be used for the irrigation Train team of workers and technicians in the operation of irrigation systems Track irrigation activities to ensure operational requirements are met Monitor the irrigation system's function and effectiveness in meeting requirements Guide the maintenance and repair of irrigation systems in accordance to guidelines Implement efficient use of water resources in irrigation activities Adhere to relevant safety and water resource management guidelines in irrigation tasks 	<p>requirements of a site or individual landscape</p> <ul style="list-style-type: none"> Establish operating procedures for the operation of irrigation systems Train supervisors in the operation and management of irrigation systems Develop irrigation and water management plans and procedures for an individual landscape operation or site Evaluate the efficiency and effectiveness of irrigation systems in meeting irrigation requirements Implement measures to manage the efficient use of water in landscape irrigation activities Review compliance to regulatory and legislative requirements for water resource utilisation 	<p>organisation's irrigation requirements</p> <ul style="list-style-type: none"> Establish systems to measure effectiveness and efficiency of organisation's irrigation systems Evaluate new technologies and methods for enhancing the efficiency of water usage and minimising water wastage in landscape irrigation activities Establish improvement measures to enhance the efficiency and effectiveness of irrigation systems in meeting the organisation's irrigation requirements Implement the adoption of measures to regulate the efficient use of water in landscape irrigation activities Enforce compliance to regulatory and legislative requirements for water resource utilisation 	
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